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                        Solid- and solution-phase combinatorial
                        libraries synthesis of heparin and other
                        glycosaminoglycans as potential receptors
INVENTOR (S):
                        Seeberger, Peter H.; Orqueira,
                        Hernan; Schell, Peter
PATENT ASSIGNEE(S):
                        Massachusetts Institute of Technology, USA
SOURCE:
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                       CODEN: PIXXD2
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FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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     PATENT NO.
                                        APPLICATION NO.
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    WO 2002058633 A2 20020801
WO 2002058633 A3 20021017
                                        WO 2002-US1772
                                                               20020122
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ,
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
    US 2003013862 A1 20030116 US 2002-54724 20020122 EP 1353556 A2 20031022 EP 2002-709129 20020122
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.:
                                         US 2001-263621P
                                                           P 20010123
                                                           W 20020122
                                         WO 2002-US1772
PATENT CLASSIFICATION CODES:
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
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WO 2002058633 ICM A61K
OTHER SOURCE(S):
                     MARPAT 137:125357
GRAPHIC IMAGE:
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ABSTRACT:

Described is a modular, general synthetic strategy for the preparation in solution

on a solid support of heparin, heparin-like glycosaminoglycans, glycosaminoglycans and non-natural analogs, e.g. I, wherein X is OH, acyloxy, silyloxy, halide, alkylthio, arylthio, alkoxy, OC(NH)CCl3; R is H, alkyl, aryl, arylalkyl, heteroarylalkyl, silyl, acyl, alkenyloxycarbonyl, aralkyloxycarbonyl; R1 is H, alkyl, aryl, arylalkyl, heteroarylalkyl and derivs. Addnl., the modular strategy provides the basis for the preparation of combinatorial libraries and parallel libraries of defined glycosaminoglycan oligosaccharides. The defined glycosaminoglycan structures may be used in high-throughput screening expts. to identify carbohydrate sequences that regulate a host of recognition and signal-transduction processes. The determination of

specific sequences involved in receptor binding holds great promise for the development of mol. tools which will allow modulation of processes underlying viral entry, angiogenesis, kidney diseases and diseases of the control nervous system (no data). Notably, the present invention enables the automated synthesis of glycosaminoglycans in much the same fashion that peptides and oligonucleotides are currently assembled. Thus, n-pentenyl (2-deoxy-2-sodium $sulfonatamido-3,4,6-tri-O-sodium sulfonato-\alpha-D-glucopyranosyl)$ -

 $(1\rightarrow 4)$ - (sodium 2-0-sodium sulfonato- α -D-idopyranosyluronate) - $(1\rightarrow 4)$ - $(2\text{-deoxy-2-sodium sulfonatamido-6-0-sodium sulfonato-}\alpha\text{-D-}$

glucopyranosyl)-(1 \rightarrow 4)-sodium 2-O-sodium sulfonato- β -Dglucopyranosiduronate was prepared as potential receptors.

SUPPL. TERM:

solid phase prepn combinatorial glycosaminoglycan

oligosaccharide uronate heparin

INDEX TERM:

Combinatorial library

Solid phase synthesis

(solid-phase combinatorial libraries synthesis of

qlycosaminoglycans as potential receptors)

INDEX TERM:

Oligosaccharides, preparation

Receptors

ROLE: (CPN) (Combinatorial preparation); IMF (Industrial

manufacture); SPN (Synthetic preparation); (CMBI)

(Combinatorial study); (PREP) (Preparation)

(solid-phase combinatorial libraries synthesis of

glycosaminoglycans as potential receptors)

INDEX TERM:

80321-89-7P 87326-73-6P 92955-17-4P 99049-65-7P

120312-09-6P 138889-14-2P

138923-10-1P 154920-34-0P

154970-28-2P 385422-21-9P

385422-22-0P 444118-29-0P

444118-30-3P 444118-31-4P

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444118-32-5P 444118-33-6P
                    444118-34-7P 444118-35-8P
                    444118-36-9P 444118-37-0P
                    444118-38-1P 444118-39-2P
                    444118-40-5P 444118-41-6P
                    444118-42-7P 444118-44-9P
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                   444119-14-6P 444119-15-7P
                   444119-22-6P 444119-23-7P
                   444119-41-9P
                   ROLE: IMF (Industrial manufacture); RCT (Reactant); SPN
                   (Synthetic preparation); PREP (Preparation); RACT (Reactant
                   or reagent)
                      (solid-phase combinatorial libraries synthesis of
                      qlycosaminoglycans as potential receptors)
INDEX TERM:
                 87326-76-9P 444118-43-8P
                   444118-46-1P 444118-80-3P
                   444118-86-9P 444118-92-7P
                   444118-93-8P 444118-95-0P
                   444118-96-1P 444118-97-2P
                   444118-98-3P 444119-16-8P
                   444119-17-9P 444119-18-0P
                   444119-19-1P 444119-20-4P
                   444119-21-5P
                   ROLE: IMF (Industrial manufacture); SPN (Synthetic
                   preparation); PREP (Preparation)
                      (solid-phase combinatorial libraries synthesis of
                      glycosaminoglycans as potential receptors)
INDEX TERM:
                 56-40-6, Glycine, reactions 66-84-2,
                   Glucosamine hydrochloride 582-52-5
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171032-74-9
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ROLE: RCT (Reactant); RACT (Reactant or reagent) (solid-phase combinatorial libraries synthesis of glycosaminoglycans as potential receptors)

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     99049-65-7P 120312-09-6P 138889-14-2P
     138923-10-1P 154920-34-0P 154970-28-2P
     385422-21-9P 385422-22-0P 444118-29-0P
     444118-30-3P 444118-31-4P 444118-32-5P
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     444119-15-7P 444119-22-6P 444119-23-7P
     444119-41-9P
     RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic
     preparation); PREP (Preparation); RACT (Reactant or reagent)
        (solid-phase combinatorial libraries synthesis of glycosaminoglycans as
        potential receptors)
     80321-89-7 HCAPLUS
RN
     \beta-D-Glucopyranose, 2-azido-2-deoxy-, 1,3,4,6-tetraacetate (9CI) (CA
CN
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Absolute stereochemistry.

INDEX NAME)

RN 87326-73-6 HCAPLUS CN α -D-Glucofuranuronic acid, 1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME) Absolute stereochemistry.

RN 92955-17-4 HCAPLUS

CN L-Iduronic acid, 3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 99049-65-7 HCAPLUS

CN β -D-Glucopyranose, 2-azido-2-deoxy-1-O-[(1,1-dimethylethyl)dimethylsilyl]-, 3,4,6-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 120312-09-6 HCAPLUS

CN β-D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-dimethylethyl)dimethylsilyl]-3,6-bis-0-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 138889-14-2 HCAPLUS

CN β -D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-4,6-0-[(R)-phenylmethylene]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 138923-10-1 HCAPLUS

CN β-D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-dimethylethyl)dimethylsilyl]-4,6-0-[(R)-phenylmethylene]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 154920-34-0 HCAPLUS

CN β-D-Glucopyranose, 2-azido-2-deoxy-1,4-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-3,6-bis-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

RN 154970-28-2 HCAPLUS CN α -D-Glucopyranose, 2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)-, 6-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 385422-21-9 HCAPLUS CN β -D-Glucopyranose, 2-azido-2-deoxy-1-O-[(1,1-dimethylethyl)dimethylsilyl]-4,6-O-[(R)-phenylmethylene]-, 3-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 385422-22-0 HCAPLUS CN β -D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-dimethylethyl)dimethylsilyl]-6-0-(phenylmethyl)-, 3-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 444118-29-0 HCAPLUS

CN β -D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-, 6-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 444118-30-3 HCAPLUS

CN β -D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-dimethylethyl)dimethylsilyl]-, 3,6-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 444118-31-4 HCAPLUS

CN α -D-Glucopyranosyl fluoride, 2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, 6-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-32-5 HCAPLUS

CN β -D-Glucopyranosyl fluoride, 2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-, 6-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-33-6 HCAPLUS

CN α -D-Glucopyranose, 2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, 6-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

RN 444118-34-7 HCAPLUS CN β -D-Glucopyranose, 2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-, 6-acetate 1-(trichloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-35-8 HCAPLUS CN α -D-Glucopyranose, 2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-, 3,6-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

RN 444118-36-9 HCAPLUS CN β -D-Glucopyranose, 2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-, 3,6-diacetate 1-(trichloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-37-0 HCAPLUS CN β -D-Glucopyranose, 2-azido-2-deoxy-1-O-[(1,1-dimethylethyl)dimethylsilyl]-, 6-acetate (9CI) (CA INDEX NAME)

444118-38-1 HCAPLUS RN

 β -D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-CNdimethylethyl) dimethylsilyl] -3,4-bis-O-(phenylmethyl)-, 6-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

444118-39-2 HCAPLUS RN

D-Glucuronic acid, 3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX CNNAME)

Absolute stereochemistry.

444118-40-5 HCAPLUS RN

 β -L-Idofuranuronic acid, 1,2-O-(1-methylethylidene)-3-O-CN (phenylmethyl) -, methyl ester, 4-oxopentanoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

444118-41-6 HCAPLUS RN

CN α -D-Glucopyranuronic acid, 1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-42-7 HCAPLUS

CN α -D-Glucopyranuronic acid, 1,2-O-cyclopentylidene-3-O-(phenylmethyl) - , methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-44-9 HCAPLUS

CN β -L-Idopyranuronic acid, 1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 444118-45-0 HCAPLUS

CN β -L-Idopyranuronic acid, 1,2-O-cyclopentylidene-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

RN 444118-47-2 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-48-3 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)- α -D-glucopyranosyl]-1,2-0-cyclopentylidene-3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-49-4 HCAPLUS

CN D-Glucuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-α-D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

RN 444118-50-7 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-51-8 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-1,2-O-cyclopentylidene-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-52-9 HCAPLUS

CN D-Glucuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-3,4-bis-0-(phenylmethyl)-α-D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-53-0 HCAPLUS CN β -L-Idopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-54-1 HCAPLUS CN β -L-Idopyranuronic acid, 4-O-[3,6-di-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]- α -D-glucopyranosyl]-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

RN 444118-55-2 HCAPLUS

CN β -L-Idopyranuronic acid, 1,2-O-cyclopentylidene-4-O-[3,6-di-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-56-3 HCAPLUS

CN L-Iduronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-α-D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-57-4 HCAPLUS

CN L-Iduronic acid, 4-0-[3,6-di-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-58-5 HCAPLUS
CN D-Glucopyranuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-α-D-glucopyranosyl]3-0-(phenylmethyl)-, methyl ester, 1,2-bis(chloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-59-6 HCAPLUS CN D-Glucopyranuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-3,4-bis-0-(phenylmethyl)- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 1,2-bis(chloroacetate) (9CI) (CA INDEX NAME)

RN 444118-60-9 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(chloroacetate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-61-0 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(chloroacetate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

RN 444118-62-1 HCAPLUS

CN β -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-1-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-63-2 HCAPLUS

CN β-D-Glucopyranuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-α-D-glucopyranosyl]-1-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-, methyl ester, 2-(2-propenyl carbonate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-64-3 HCAPLUS

CN β -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-1-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester, 2-(chloroacetate) (9CI) (CA INDEX NAME)

RN 444118-65-4 HCAPLUS

CN β -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-1-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-66-5 HCAPLUS

CN β -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-1-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester, 2-(2-propenyl carbonate) (9CI) (CA INDEX NAME)

RN 444118-67-6 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-68-7 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(2-propenyl carbonate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

RN 444118-69-8 HCAPLUS

CN α -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-70-1 HCAPLUS

CN D-Glucopyranuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-3,4-bis-0-(phenylmethyl)-α-D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-(2-propenyl carbonate) 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

RN 444118-71-2 HCAPLUS

CN L-Idopyranuronic acid, 4-0-[3,6-di-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 1,2-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-72-3 HCAPLUS

CN L-Idopyranuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 1,2-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-73-4 HCAPLUS

CN β -L-Idopyranuronic acid, 4-O-[3,6-di-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate)

(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-74-5 HCAPLUS

CN β -L-Idopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-75-6 HCAPLUS CN β-D-Glucopyranosidure

 β -D-Glucopyranosiduronic acid, 4-pentenyl 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)- α -D-glucopyranosyl]-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

RN 444118-76-7 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 4-O-[6-O-acetyl-2-azido-2-deoxy-3-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-77-8 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(chloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-78-9 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 4-0-[6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-(chloroacetate) (9CI) (CA INDEX NAME)

ClCH₂ O Ph OAC

$$(CH_2)_3$$
 R S H R R

O Ph

O Ph

O Me

RN 444118-79-0 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-(2-propenyl carbonate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-81-4 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 0-3,6-di-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]- α -D-glucopyranosyl-(1 \rightarrow 4)-0-2-0-acetyl-6-methyl-3-0-(phenylmethyl)- α -L-idopyranuronosyl-(1 \rightarrow 4)-0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-3-0-(phenylmethyl)-, methyl ester, 2-(chloroacetate) (9CI) (CA INDEX NAME)

PAGE 1-B

RN 444118-82-5 HCAPLUS CN β-D-Glucopyranosidure

β-D-Glucopyranosiduronic acid, 4-pentenyl O-3,6-di-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-α-D-glucopyranosyl-(1+4)-O-2-O-acetyl-6-methyl-3-O-(phenylmethyl)-α-L-idopyranuronosyl-(1+4)-O-6-O-acetyl-2-azido-2-deoxy-3-O-(phenylmethyl)-α-D-glucopyranosyl-(1+4)-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

PAGE 1-B

RN 444118-83-6 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl O-6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl-(1-4)-O-2-O-acetyl-6-methyl-3-O-(phenylmethyl)- α -L-idopyranuronosyl-(1-4)-O-6-O-acetyl-2-azido-2-deoxy-3-O-(phenylmethyl)- α -D-glucopyranosyl-(1-4)-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 444118-84-7 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 0-3,6-di-O-acetyl-2-azido-2-deoxy- α -D-glucopyranosyl-(1-4)-O-2-O-acetyl-6-methyl-3-O-(phenylmethyl)- α -L-idopyranuronosyl-(1-4)-O-6-O-acetyl-2-azido-2-deoxy-3-O-(phenylmethyl)- α -D-glucopyranosyl-(1-4)-3-O-(phenylmethyl)-, methyl ester, 2-(chloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-B

 $-CH_2$

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RN 444118-85-8 HCAPLUS 

CN \beta-D-Glucopyranosiduronic acid, 4-pentenyl 0-3,6-di-0-acetyl-2-azido-2-deoxy-\alpha-D-glucopyranosyl-(1\rightarrow 4)-0-2-0-acetyl-6-methyl-3-0-(phenylmethyl)-\alpha-L-idopyranuronosyl-(1\rightarrow 4)-0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)-\alpha-D-glucopyranosyl-(1\rightarrow 4)-3-0-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)
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PAGE 1-B

___ CH2

RN 444118-87-0 HCAPLUS

CN β-L-Idopyranuronic acid, 4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-88-1 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 0-2-0-acetyl-4-0-[(1,1-dimethylethyl)dimethylsilyl]-6-methyl-3-0-(phenylmethyl)- α -L-idopyranuronosyl-(1 \rightarrow 4)-0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-3-0-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

CH₂

RN 444118-89-2 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl O-2-O-acetyl-6-methyl-3-O-(phenylmethyl)- α -L-idopyranuronosyl-(1 \rightarrow 4)-O-6-O-acetyl-2-azido-2-deoxy-3-O-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-90-5 HCAPLUS

CN β -D-Glucopyranose, 0-6-O-acetyl-2-azido-2-deoxy-3,4-bis-O- (phenylmethyl)- α -D-glucopyranosyl-(1-)40-O-2-O-(1,4-dioxopentyl)-6-methyl-3-O-(phenylmethyl)- β -D-glucopyranuronosyl-

 $(1\rightarrow 4)$ -2-azido-2-deoxy-1-O-[(1,1-dimethylethyl)dimethylsilyl]-, 3,6-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-91-6 HCAPLUS

CN D-Glucopyranose, 0-6-0-acetyl-2-azido-2-deoxy-3,4-bis-0-(phenylmethyl)- α -D-glucopyranosyl-(1-4)-0-2-0-(1,4-dioxopentyl)-6-methyl-3-0-(phenylmethyl)- β -D-glucopyranuronosyl-(1-4)-2-azido-2-deoxy-, 3,6-diacetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-94-9 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 0-3,4,6-tri-0-acetyl-2-azido-2-deoxy- α -D-glucopyranosyl- $(1\rightarrow4)$ -0-2-0-acetyl-6-methyl-3-0-(phenylmethyl)- α -L-idopyranuronosyl- $(1\rightarrow4)$ -0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl- $(1\rightarrow4)$ -3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

_OAc

OAc

RN 444118-99-4 HCAPLUS CN β -D-Glucopyranose, 2-azido-2-deoxy-1-0-[(1,1-dimethylethyl)dimethylsilyl]-, 3-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 444119-00-0 HCAPLUS

CN β-D-Glucopyranose, 2-azido-2-deoxy-1,4-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, 6-acetate (9CI) (CA INDEX NAME)

RN 444119-01-1 HCAPLUS CN β -D-Glucopyranose, 2-azido-2-deoxy-1,4-bis-0-[(1,1-dimethylethyl)dimethylsilyl]-, 3,6-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 444119-02-2 HCAPLUS
CN β-D-Glucopyranose, 2-azido-2-deoxy-1,4-bis-O-[(1,1-dimethylethyl)dimethylsilyl]-6-O-(phenylmethyl)-, 3-acetate (9CI) (CA INDEX NAME)

RN 444119-03-3 HCAPLUS

CN β -D-Glucopyranosyl bromide, 2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-, 3,6-diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444119-04-4 HCAPLUS

CN β -D-Glucopyranuronic acid, 4-O-[6-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)- α -D-glucopyranosyl]-1-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444119-05-5 HCAPLUS

Absolute stereochemistry. Rotation (+).

RN 444119-06-6 HCAPLUS

CN L-Iduronic acid, 4-O-[3,6-di-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-07-7 HCAPLUS

CN L-Iduronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-acetate (9CI) (CA INDEX NAME)

RN 444119-08-8 HCAPLUS CN β -L-Idopyranuronic acid, 4-O-[(1,1-dimethylethyl)dimethylsilyl]-1,2-O-(1-methylethylidene)-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-09-9 HCAPLUS
CN L-Iduronic acid, 4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl), methyl ester (9CI) (CA INDEX NAME)

RN 444119~10-2 HCAPLUS

CN L-Idopyranuronic acid, 4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester, diacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-11-3 HCAPLUS

CN L-Iduronic acid, 4-O-[(1,1-dimethylethyl)dimethylsilyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-12-4 HCAPLUS

CN β-D-Glucopyranosiduronic acid, 4-pentenyl 0-3,4,6-tri-0-acetyl-2-azido-2-deoxy-α-D-glucopyranosyl-(1→4)-0-2-0-acetyl-6-methyl-3-0-(phenylmethyl)-α-L-idopyranuronosyl-(1→4)-0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)-α-D-glucopyranosyl-(1→4)-3-0-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

___ CH₂

CN

RN 444119-13-5 HCAPLUS

β-D-Glucopyranosiduronic acid, 4-pentenyl O-2-azido-2-deoxy-α-D-glucopyranosyl-(1 \rightarrow 4)-O-3-O-(phenylmethyl)-α-L-idopyranuronosyl-(1 \rightarrow 4)-O-2-azido-2-deoxy-3-O-(phenylmethyl)-α-D-glucopyranosyl-(1 \rightarrow 4)-3-O-(phenylmethyl)- (9CI) (CA INDEX NAME)

PAGE 1-B

OH

``...OH

Absolute stereochemistry.

PAGE 1-A CO2H ЙЗ HO₂C Н R R S S R R ŌSO3H OSO3H Ph Ph OSO3H OSO3H

●8 Na

PAGE 1-B

`---OSO3H

RN 444119-15-7 HCAPLUS CN β -D-Glucopyranosiduronic acid, pentyl O-2-amino-2-deoxy-3,4,6-tri-O-sulfo- α -D-glucopyranosyl- $(1\rightarrow 4)$ -O-2-O-sulfo- α -L-idopyranuronosyl- $(1\rightarrow 4)$ -O-2-amino-2-deoxy-6-O-sulfo- α -D-

glucopyranosyl- $(1\rightarrow 4)$ -, 2-(hydrogen sulfate), octasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.

●8 Na

PAGE 1-B

`Me

RN 444119-22-6 HCAPLUS

CN D-Glucuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-(chloroacetate) (9CI) (CA INDEX NAME)

RN 444119-23-7 HCAPLUS D-Glucuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-3,4-bis-0-(phenylmethyl)- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-(chloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-41-9 HCAPLUS G-D-Glucopyranosiduronic acid, 4-pentenyl 0-3,6-di-0-acetyl-2-azido-2-deoxy- α -D-glucopyranosyl- $(1\rightarrow 4)$ -0-2-0-acetyl-6-methyl-3-0-(phenylmethyl)- α -L-idopyranuronosyl- $(1\rightarrow 4)$ -0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl- $(1\rightarrow 4)$ -3-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME) Absolute stereochemistry. Rotation (+).

PAGE 1-B

__OAc

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IT
     87326-76-9P 444118-43-8P 444118-46-1P
     444118-80-3P 444118-86-9P 444118-92-7P
     444118-93-8P 444118-95-0P 444118-96-1P
     444118-97-2P 444118-98-3P 444119-16-8P
     444119-17-9P 444119-18-0P 444119-19-1P
     444119-20-4P 444119-21-5P
     RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP
     (Preparation)
        (solid-phase combinatorial libraries synthesis of glycosaminoglycans as
        potential receptors)
RN
     87326-76-9 HCAPLUS
     \beta-L-Idofuranuronic acid, 1,2-O-(1-methylethylidene)-3-O-
CN
     (phenylmethyl) -, methyl ester (9CI) (CA INDEX NAME)
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RN 444118-43-8 HCAPLUS

CN α -D-Glucofuranuronic acid, 1,2-O-cyclopentylidene-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-46-1 HCAPLUS

CN β-L-Idofuranuronic acid, 1,2-O-cyclopentylidene-3-O-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 444118-80-3 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 4-0-[6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-(2-propenyl carbonate) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

RN 444118-86-9 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-0-2-0-acetyl-6-methyl-3-0-(phenylmethyl)- α -L-idopyranuronosyl-(1 \rightarrow 4)-0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-3-0-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-B

RN 444118-92-7 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl O-6-O-acetyl-2-azido-2-deoxy-3,4-bis-O-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-O-2-O-(1,4-dioxopentyl)-6-methyl-3-O-(phenylmethyl)- β -D-glucopyranuronosyl-(1 \rightarrow 4)-O-3,6-di-O-acetyl-2-azido-2-deoxy- α -D-glucopyranosyl-(1 \rightarrow 4)-O-2-O-acetyl-6-methyl-3-O-(phenylmethyl)- α -L-idopyranuronosyl-(1 \rightarrow 4)-O-6-O-acetyl-2-azido-2-deoxy-3-O-(phenylmethyl)- α -D-glucopyranosyl-(1 \rightarrow 4)-3-O-(phenylmethyl)-, methyl ester, 2-(4-oxopentanoate) (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

RN 444118-93-8 HCAPLUS

CN β -D-Glucopyranosiduronic acid, 4-pentenyl 0-3,6-di-0-acetyl-2-azido-2-deoxy- α -D-glucopyranosyl- $(1\rightarrow 4)$ -0-2-0-acetyl-6-methyl-3-0-(phenylmethyl)- α -L-idopyranuronosyl- $(1\rightarrow 4)$ -0-6-0-acetyl-2-azido-2-deoxy-3-0-(phenylmethyl)- α -D-glucopyranosyl- $(1\rightarrow 4)$ -2,3-bis-0-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)

PAGE 1-B

__OAc

ОН

RN 444118-95-0 HCAPLUS

CN β -D-Glucopyranosiduronic acid, pentyl O-2-deoxy-3,4,6-tri-O-sulfo-2-(sulfoamino)- α -D-glucopyranosyl-(1 \rightarrow 4)-O-2-O-sulfo- α -L-idopyranuronosyl-(1 \rightarrow 4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)- α -D-glucopyranosyl-(1 \rightarrow 4)-, 2-(hydrogen sulfate), hexasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

●6 Na

PAGE 1-B

___ Me

RN 444118-96-1 HCAPLUS

CN D-Glucopyranose, 2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3,6-bis-O-(phenylmethyl)-, 1-(trichloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444118-97-2 HCAPLUS

CN β-D-Glucopyranose, 2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3,6-bis-0-(phenylmethyl)-, 1-(trichloroacetate) (9CI) (CA INDEX NAME)

RN 444118-98-3 HCAPLUS

CN β-D-Glucopyranose, 2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-6-0-(phenylmethyl)-, 3-acetate 1-(trichloroacetate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-16-8 HCAPLUS

CN β -L-Idopyranuronic acid, 4-O-[3-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-6-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-17-9 HCAPLUS

CN β-D-Glucopyranuronic acid, 4-0-[3,6-di-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-α-D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

RN 444119-18-0 HCAPLUS

CN β -D-Glucopyranuronic acid, 4-O-[3-O-acetyl-2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-6-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-19-1 HCAPLUS

CN β -L-Idopyranuronic acid, 4-O-[2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3,6-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-20-4 HCAPLUS

GN β-D-Glucopyranuronic acid, 4-0-[6-0-acetyl-2-azido-2-deoxy-4-0-[(1,1-dimethylethyl)dimethylsilyl]-3-0-(phenylmethyl)-α-D-glucopyranosyl]-3-0-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-

trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 444119-21-5 HCAPLUS

CN β -D-Glucopyranuronic acid, 4-O-[2-azido-2-deoxy-4-O-[(1,1-dimethylethyl)dimethylsilyl]-3,6-bis-O-(phenylmethyl)- α -D-glucopyranosyl]-3-O-(phenylmethyl)-, methyl ester, 2-acetate 1-(2,2,2-trichloroethanimidate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

IT 56-40-6, Glycine, reactions 66-84-2, Glucosamine
 hydrochloride 582-52-5 171032-74-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (solid-phase combinatorial libraries synthesis of glycosaminoglycans as
 potential receptors)
RN 56-40-6 HCAPLUS
CN Glycine (8CI, 9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{O} \\ || \\ \text{HO-C-CH}_2\text{--NH}_2 \end{array}$$

RN 66-84-2 HCAPLUS CN D-Glucose, 2-amino-2-deoxy-, hydrochloride (8CI, 9CI) (CA INDEX NAME)

● HCl

582-52-5 HCAPLUS RN α -D-Glucofuranose, 1,2:5,6-bis-O-(1-methylethylidene)- (9CI) (CA CNINDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 171032-74-9 HCAPLUS

D-Glucopyranose, 2-azido-2-deoxy-, 1,3,4,6-tetraacetate (9CI) (CA INDEX CNNAME)

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